

Application No.: 09/934031

Case No.: 56091US002

Remarks

The Office Action dated March 12, 2004 has been received and reviewed. Claim 1 has been amended, new claims 38-41 have been added, and claims 2, 10-13, and 35 have been cancelled. The pending claims are claims 1, 4-8, 15-28, 30-33, and 36-41. Reconsideration and withdrawal of the rejections are respectfully requested.

Claim Amendments

Claim 1 has been amended to substantially include the elements of original claim 2.

Claims 38-41 have been added to more particularly claim the present disclosure. Support for new claims 38-41 can be found, e.g., in the Specification at page 2, lines 1-10. No new matter was added.

The 35 U.S.C. § 103(a) Rejections

Claims 1-2 and 4-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Carte et al. (U.S. Patent No. 5,947,917) in view of Lightle et al. (U.S. Patent No. 5,128,804).

Applicant traverses this rejection. However, to further move this case towards issuance, Applicant has amended claim 1 to substantially include the elements of original claim 2. Applicant submits that claims 1 and 4-8 are not *prima facie* obvious because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the teachings of Carte et al. with those of Light et al. to produce the present disclosure as recited in claims 1 and 4-8.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See M.P.E.P. § 2143.01. The mere fact that references

Application No.: 09/934031

Case No.: 56091US002

can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

For example, Carte et al. teaches a water resistant, flexible, dermal adhesive product for conformable topical application to human skin. *See* Carte et al., Abstract. Carte et al. further teaches that the product can be an adhesive bandage or a medical tape. The medical tape includes a backing 12 and adhesive 14. *See*, e.g., *id.* at FIG. 2. For the adhesive bandage, Carte et al. teaches a backing or facestock 12 having coated on one surface thereof a self adhesive or pressure-sensitive adhesive layer 14 which is protected by release liner segments 16 and 18 and which supports an absorbent pad or gauze 20. *See id.* at column 3, lines 26-30. However, as admitted by the Office Action, Carte et al. does not teach a layer of retroreflective beads that are partially embedded in the non-adhesive side of a tape as recited, e.g., independent claim 1 of the present invention. In fact, Carte et al. is silent regarding retroreflective articles.

Further, Lightle et al. teaches a flexible, self-supporting, air-permeable retroreflective sheeting that includes a two-sided, self-supporting, air-permeable web of thermoplastic filaments with retroreflective elements partially embedded in the filaments on one side of the web. *See* Lightle et al., Abstract. On the other side of the web, the surfaces of the filaments are substantially free of reflective elements. *Id.* Lightle et al. further teaches that the thermoplastic web may be used to secure the sheeting to a desired substrate, e.g., as an iron-on patch to an article of clothing. *Id.* at column 2, lines 7-10. Alternatively, Lightle et al. teaches that the described sheetings may be secured to a substrate by intermediate adhesive or mechanical means such as sewing. *Id.* at column 2, lines 11-13. Lightle et al., however, does not teach that its sheetings can be attached to a substrate using a pressure-sensitive adhesive.

In fact, Lightle et al. teaches away from being combined with Carte et al. It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983). As stated above, Lightle et al. teaches attaching its sheeting to a substrate using heat lamination, adhesion using an intermediate adhesive, or sewing. All such techniques could not be used to adhere sheeting to human skin. Heat lamination would be extremely painful and could cause burns, and sewing is completely unacceptable. Using an intermediate adhesive on human skin could cause the sheeting to be very difficult and painful to

Application No.: 09/934031

Case No.: 56091US002

remove. Therefore, these techniques of attachment described in Lightle et al. teach away from the adhesive bandages and medical tapes taught by Carte et al.

Further, Lightle et al. teaches away from the present disclosure as recited, e.g., in amended claim 1. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). For example, claim 1 recites a tape capable of being comfortably adhered to human skin. In contrast to claim 1, Lightle et al., as described above, teaches techniques for attaching its described sheetings that would be harmful if used to attach such sheetings to human skin.

Without some teaching, suggestion, or motivation to combine the teachings of Carte et al. with those of Lightle et al. either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art, such references cannot be combined to render claims 1 and 4-8 of the present invention *prima facie* obvious.

For at least the above reasons, Applicant submits that claims 1 and 4-8 are not *prima facie* obvious in view of the cited references. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claims 1-2, 4, 6-8, and 35-37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over May (U.S. Patent No. 4,648,689) in view of Yoshitaka (Japanese Patent No. 3,193,440).

Applicant traverses this rejection. However, to further move this case towards issuance, Applicant has amended claim 1 to substantially include the elements of original claim 2. Applicant submits that claims 1, 4, 6-8, and 35-37 are not *prima facie* obvious in view of the cited references because there is no teaching, suggestion, or motivation to combine the teachings of May with those of Yoshitaka to produce the present invention as recited in claims 1, 4, 6-8, and 35-37.

For example, May teaches pavement marking tape that includes an elastomeric body 2 having an adhesive layer 3 attached to the base of the body 2 and reflecting material 4 attached to the top surface of the body 2. See May, column 3, lines 33-40. The disclosed pavement marking tape is designed to be attached to a roadway via the adhesive layer 3. May further teaches that the reflecting material 4 is preferably a thin retroreflective sheet including a polymeric support sheet in which a monolayer of transparent microspheres or beads are embedded. See *id.* at

Application No.: 09/934031

Case No.: 56091US002

column 3, lines 44-47. The reflector support sheet has a layer of adhesive on the back by which it is adhered to the body 2. *See id.* at column 3, lines 49-52. In other words, May teaches that the microspheres are embedded in a polymeric support sheet that is then adhered to the body 2.

In contrast to May, Yoshitaka teaches a reflective sheet having a foamed layer 14 and an adhesive layer 11 on the front surface of the foamed layer 14. *See* Yoshitaka, page 1, ¶1. Glass beads 13 are dispersed and adhered to the foamed layer 14, e.g., using the adhesive layer 11 or through heat lamination. Yoshitaka, page 3, ¶5. The disclosed reflective sheet can be used as wall decorating material that is glued on the surface of indoor room walls, or as a reflective material that is glued on electrical poles or signs. *Id.* at page 1, ¶2.

The Examiner alleges that it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a layer of retroreflective beads with an aluminum coating that are embedded in a surface in May in order to get better adhesion of the beads to the surface so that they do not fall off as taught by Yoshitaka. Applicant traverses this alleged motivation. As stated above, May teaches pavement marking tape having microspheres that are embedded in a polymeric support that is then adhered to a foam body. There is no motivation or suggestion that the microspheres taught by May should be embedded in the foam body. Nor is there any suggestion or motivation to embed the polymeric support sheet into the foam body of May. Absent a motivation to modify the teachings of May with those of Yoshitaka, the combination of such references cannot render claims 1, 4, 6-8, and 35-37 *prima facie* obvious.

Further, the Examiner's alleged motivation to combine the teachings of May with those of Yoshitaka fails to provide a convincing line of reasoning for such a combination. For example, the Examiner alleges that one skilled in the art would be motivated to combine the teachings of May with those of Yoshitaka to "get a better adhesion of the beads to the surface so that they do not fall off as taught by Hokusin" is unsupported by either May or Yoshitaka. For example, Yoshitaka does not teach that embedding beads in a elastomeric body provides better adhesion than embedding beads in a polymeric support sheet and then attaching the sheet to an elastomeric body as is taught by May. Absent a convincing line of reasoning to combine such references, the Examiner cannot meet her burden for *prima facie* obviousness.

Application No.: 09/934031

Case No.: 56091US002

Applicant further notes that neither May nor Yoshitaka teach or suggest a tape capable of being comfortably adhered to human skin as is recited in amended claim 1. As described above, May teaches a pavement marking tape designed to be attached to a roadway, and Yoshitaka teaches a sheeting that can be used as a wall decorating material that is glued on the surface of indoor room walls, or as a reflective material that is glued on electrical poles or signs. Because neither May nor Yoshitaka teach all of the elements of claim 1, such claim is not *prima facie* obvious in view of the combination of May and Yoshitaka.

However, in the Response to Arguments, the Examiner alleges that both May and Yoshitaka disclose reflective automotive adhesive sheets made with reflective beads and a foam layer. Further, the Examiner alleges that it would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have replaced the foam and polymeric support layer containing the retroreflective beads with Yoshitaka's foam layer containing the beads since the foam layer of Yoshitaka is performing the equivalent function to May's combination layer, i.e., providing a retroreflective layer used on an adhesive sheet to reflect light back to oncoming traffic.

Applicant traverses this alleged motivation to combine May with Yoshitaka. First, May and Yoshitaka do not both disclose reflective automotive sheets. Yoshitaka teaches a reflective sheet that can be used as a wall decorating material, or as a reflective material that is glued on electrical poles or signs. See Yoshitaka, page 1, ¶2. Yoshitaka does not teach a sheeting for use as a "reflective automotive sheet" or as a pavement marking tape as is described in May. Further, Yoshitaka teaches that its described sheet has good touch and feel, fine reflection, and a silk like gloss. *Id.* at page 5. Applicant submits that none of these characteristics desired by Yoshitaka would be pertinent to a "reflective automotive sheet."

Second, Applicant submits that the foamed layer of Yoshitaka does not perform the equivalent function as May's combined polymeric support sheet and elastomeric body. For example, May teaches that the elastomeric body is used in the pavement marking tape to reduce impact forces generated when the marker is struck by a vehicle tire. See May, column 2, lines 22-26. In contrast to May, there is no teaching in Yoshitaka that its described sheeting uses foam to reduce impact forces generated by a vehicle tire. In fact, Yoshitaka is silent regarding use of its sheeting for pavement markers.

Application No.: 09/934031

Case No.: 56091US002

Third, there is no reasonable expectation of success that using the sheeting of Yoshitaka in the pavement marker of May would work for its intended purpose. For example, one skilled in the art would not reasonably expect that embedding retroreflective beads in the elastomeric body of May would provide a pavement marker that would withstand the forces produced by a tire driving over such marker. Further, there is no teaching or suggestion in either reference that the retroreflective beads would be embedded in the elastomeric body with enough strength to prevent most of the beads from becoming dislodged when a tire drives over the elastomeric body.

Fourth, Applicant submits that the foamed layer of Yoshitaka does not perform the equivalent function of May's combination of a polymeric support layer and a elastomeric body. As stated above, one of the functions of the elastomeric body in May is to reduce impact forces generated when the marker is struck by a vehicle tire. See May, column 2, lines 22-26. Contrary to this teaching of May, there is no such teaching or suggestion in Yoshitaka that the described sheeting is used as a pavement marking or that the foamed layer in the sheeting reduces impact forces generated when the sheeting is struck by a vehicle tire.

Further, Yoshitaka teaches that glass beads 13 may be attached to the foamed layer 14 by dispersing the beads on the foamed layer, melting the foamed layer such that the glass beads become buried in the foamed layer, and passing an embossing roll over the beads such that the beads are buried inside the foamed layer and adhered to the foamed layer. See Yoshitaka, page 4. In other words, the function of the foamed layer 14 of Yoshitaka is to bind the beads to the sheeting when an adhesive agent is not used. May, on the other hand, does not bury the described microspheres into the elastomeric body 2. Instead, the microspheres are embedded in a polymeric support sheet that is then adhered to the body 2. *Id.* at column 3, lines 44-52. Therefore, the functions of the foamed layer 14 of Yoshitaka is completely different than the function of the elastomeric body 2 of May. Because of these different functions, one skilled in the art would not be motivated to combine the teachings of May with those of Yoshitaka as suggested by the Examiner.

For at least the above reasons, Applicant submits that claims 1, 4, 6-8, and 35-37 are not *prima facie* obvious in view of the combination of May and Yoshitaka. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Application No.: 09/934031

Case No.: 56091US002

Claims 10-13 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshitaka in view of Lightle et al.

Applicant traverses this rejection. However, to further move this case towards issuance, Applicant has cancelled claims 10-13, thereby rendering this rejection moot. Applicant reserves the right to present the subject matter of claims 10-13 in a subsequently filed continuation application.

Claims 23-28 and 30-33 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over May in view of Yoshitaka and further in view of Lightle et al.

Applicant traverses this rejection and submit that claims 23-28 and 30-33 are not *prima facie* obvious because there is no suggestion or motivation to combine the cited references to produce the present disclosure as claimed in claims 23-28 and 30-33. For example, as described above, there is no motivation or suggestion to modify the teachings of May with those of Yoshitaka such that beads are embedded in a foam backing. The addition of Lightle et al. does nothing to cure this deficiency already present in May and Yoshitaka.

Further, in regard to claims 31-33, Applicant submits that such claims are not *prima facie* obvious because the combination of cited references does not teach all of the elements of claims 31-33. For example, claim 31 recites an article that includes a medical tape capable of being comfortably adhered to human skin. In contrast to claim 31, none of the cited references teach a medical tape capable of being comfortably adhered to human skin. For example, as described above, May teaches a pavement marking tape, Yoshitaka teaches a sheeting for wall decoration, and Lightle et al. teaches a retroreflective sheeting for attachment to various substrates. Because the combination of May, Yoshitaka, and Lightle et al. does not teach all of the elements of claim 31, such claim cannot be *prima facie* obvious in view of the combined references.

For at least the above reasons, Applicant submits that claims 23-28 and 30-33 are not *prima facie* obvious in view of the cited references. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claim 35 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshitaka in view of Lightle et al.

Application No.: 09/934031Case No.: 56091US002

Applicant traverses this rejection. However, to further move this case towards issuance, Applicant has cancelled claim 35. Applicant reserves the right to present the subject matter of claim 35 in a subsequently filed continuation application.

Application No.: 09/934031

Case No.: 56091US002

Summary

It is respectfully submitted that the pending claims are in condition for allowance. Reconsideration and withdrawal of all rejections are respectfully requested. The Examiner is invited to contact Applicant's Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,

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Date

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